



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/682,562	-10/09/2003	Gary A. Evans	BPHOTO.011	2785

7590

11/21/2005

Duke W. Yee
Carstens, Yee & Cahoon, LLP
P.O. Box 802334
Dallas, TX 75380

EXAMINER

HEALY, BRIAN

ART UNIT	PAPER NUMBER
----------	--------------

2883

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/682,562

Applicant(s)

EVANS, GARY A.

Examiner

Brian M. Healy

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-21 is/are allowed.
- 6) ☒ Claim(s) 22 and 23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10092003
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Doerr et. al., U.S.P. No. 5,809,184.

Doerr 184' teaches (Fig.2) an optical signal receiver system comprising: a first waveguide 103 having an input aperture 101, an arrayed waveguide grating 113 at a first end of the first waveguide with the arrayed waveguide structure 113 couples to a plurality of output waveguides 116 to a plurality of detectors 130 with each at a different wavelength (λ 1-4), which clearly, fully meets Applicant's claimed limitations.

Allowable Subject Matter

Claims 1-21 are allowed over the prior art of record. The closest prior art of record, i.e. Carlin, U.S.P. No. 4,894,833, teaches (Figs.1-4) a surface emitting semiconductor laser comprising: a substrate 12 upon which is placed multiple layers including a waveguide layer 20,18,16,14, contact layers 28a,b,11, reflective layers 30a,b and a grating surface 22 and aperture through which laser light 34 is outcoupled.

Neither Carlin 833' or any of the art of record (See PTO-1449 and PTO-892) teaches or suggests the claimed surface emitting laser system and method of modulating light signals using same comprising: a first waveguide having an outcoupling aperture with first and second arrayed waveguide gratings and reflectors (Note the reflectors used can be distributed Bragg reflectors.) being placed at each end of the first waveguide. Additional features in the dependent claims includes the use of first and second switches for switching between first and second waveguides and the arrayed waveguide gratings. The losses of the outcoupling aperture are then made roughly equal to the losses of the second waveguide such that the photonic density in the laser system remains roughly constant. These features are recited in claims 1-21 are are considered to be patentable over the teachings of Carlin and all of the prior art of record.

A copy of PTO-1449 will be included in this office action.

The following references are also cited by the Examiner as being pertinent art: Ackerman et. al., U.S.P. No. 6,028,881 (Figs.1-6), Damask et. al., U.S.P. No. 5,915,051 (Figs.1-21) and Amersfoort et. al., U.S.P. No. 5,748,811 (Figs.1-18).


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian M. Healy whose telephone number is (571)272-2347. The examiner can normally be reached on Compressed schedule Tues.-Thurs.7AM-4:30PM.

Art Unit: 2883

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on (571)272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian M. Healy
Primary Examiner
Art Unit 2883



Brian Healy
Primary Examiner